Economic Reforms and Financing Structure of Indonesian Listed Companies after the Asian Crisis: Corporate Finance Issues and the Solutions*

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Abstract

In this paper, the debt-ratio determinants of Indonesian listed companies are analyzed in regression for five years from 2000, and corporate financing activities after the Asian crisis are studied. The estimate results show that financing activities of listed companies are explainable by their economic rationality. The structure of excessive borrowings leveraging business groups and specific social and political elements, which has historically been seen as a problem, is not found in the results. This is considered to be a consequence of financial and corporate reforms following the Asian crisis.

However, the estimate results also illustrate that there still remain policy tasks. First of all, the insufficient collateral capacity and low visibility may become serious impediments to financing activities. Secondly, banks do not bear adequate risks that meet the profitability of borrowers, which indicates insufficient credit activities of the banks. Thirdly, it is difficult for companies with low collateral capacity to borrow long-term funds. Moreover, the core companies in each business group may function as a conduit for such borrowing.

To solve these problems, it is urgent that companies promote corporate information disclosure and facilitate the implementation of the legal process of collaterals. The banking sector assumes a key role in the external funding activities of private companies, and policy support is strongly desirable for enhancement of the credit capacity. Furthermore, in order to meet the demand of large-scale long-term funds, it is essential to develop capital markets such as the stock and debenture markets as substitutes for bank loans.

Introduction

Indonesia's economy was hit hard by the Asian crisis in 1997, in both the real and the financial sectors. Since 2003, however, the economy has steadily recovered on the foundation of its favorable domestic consumption. Furthermore, since the latter half of 2004 investment expansion has been bringing the economy into a new growth track. In the financial sector, privatization of the national banks started in 2002, which stimulated banks' lending activities in a shift to expansion after the long downturn.

One of the keys to sustaining Indonesia's stable economic growth is to develop a sound and efficient corporate finance structure. In Indonesia before the Asian crisis, weaknesses in corporate finance, represented by collusion between banks and companies and by excessive borrowings, were generally regarded as serious problems and critical factors that aggravated the crisis. In consequence, Indonesia has subsequently promoted structural reforms of corporate finance. In the banking sectors where management was seen to be inappropriate, many banks were financed by public funds in the course of management reconstruction and were reorganized in the wake of resignation of the former top management. At the same time, in the corporate sectors where excessive borrowings and overinvestment emerged as serious problems, many

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enterprise groups faced a financial crisis. This caused the disposal of nonperforming claims, along with business restructuring, to be reinforced on a large scale by IBRA and the Jakarta Initiative. Moreover, with the aim of tightening the management disciplines of banks and companies and of developing sound financial systems, a series of banking system reforms and corporate governance reforms have been implemented.

Even though corporate financial activities play an important role in Indonesia's economic development, there are still not enough economic science studies of these activities.[1] Sato (1993, 2004a and 2004b) and Takeda (2000) focused on clarification of ownership structures and conducted case studies of specific enterprise groups. Studies using econometric methods are represented by the analyses by Classen et al. (2000) and Hanazaki & Liu (2003). However, such quantitative analyses are studies of the background and impact of the Asian crisis. There has been no study yet of the current status of corporate finance under the new financial and economic circumstances after the crisis.

This paper analyzes the financing structure of listed companies in Indonesia after the Asian crisis and attempts to clarify policy tasks for the future consolidation of corporate finance by highlighting the characteristics of their financing structures. To this end, the debt-ratio formula for companies listed on the Jakarta Stock Exchange is estimated, to what extent general theories of corporate finance is applied to this formula is examined, and the impact on the formula of Indonesia's peculiar social and political factors is identified. The period of the study is the five years after 2000 (FY 2000-FY 2004), when the economy recovered from chaos after the crisis and a series of financial and economic reforms were implemented.

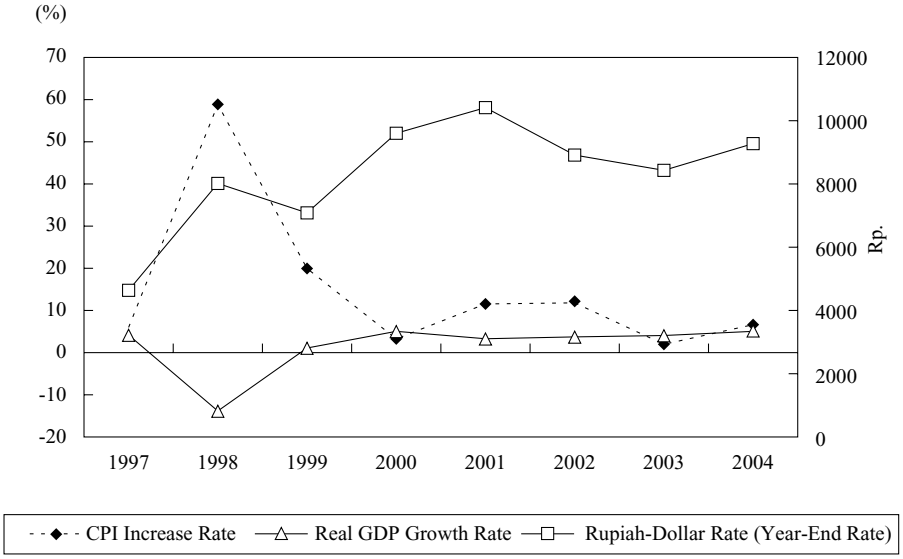
The significance of analyzing listed companies in developing countries is sometimes questioned, because listed companies are exceptional entities in such countries' markets.[2] However, there are the following advantages to this thesis in analyzing the listed companies. First of all, the available financial data are far more refined than those of unlisted companies, so that an in-depth analysis based on the framework of economics becomes possible. Secondly, consistent long-term control of the corporate data of various industries leads to a comprehensive overview of corporate finance profiles. The study of this thesis and the knowledge provided by advanced case studies are complementary approaches, which in combination are expected to greatly expand and deepen the study of this field. Thirdly, more than half of major private companies included in the top thousand companies by sales ranking are listed on the stock market in Indonesia. This means that the presence of major private companies reflects an importance that is not to be undervalued in the corporate sector or in Indonesia's economy, despite their limited number (Sato [2004]). Accordingly, a thorough analysis of the financing activities of listed companies is an essential process for studying issues of consolidating corporate finance.

This thesis is composed as follows. Chapter 1 covers changes of the corporate finance environment in Indonesia after the Asian crisis. Chapter 2 captures theoretical views for analysis of the financing activities of listed companies in Indonesia, based on the adjusted Modigliani-Miller theory with agency cost. In Chapter 3, after showing that listed companies play an important role in the corporate sector of Indonesia, management characteristics of listed companies are reviewed by corporate attribute based on the discussion in Chapter 2. In Chapter 4, determinants of the capital structures of listed companies are analyzed in regression, using the microeconomic data of individual companies. In Chapter 5, policy tasks for the consolidation of Indonesia's corporate finance are discussed, based on the study results and the discussion in the preceding chapters.

1 In Southeast Asian countries, it is difficult to use corporate data such as financial data. Therefore, econometric analyses, generally conducted in advanced countries, are not easy.

2 In developing countries, typical bluechip companies are not necessarily listed companies. As the listing objectives are different from those of advanced countries, it is often said that an analysis of listed companies does not always indicate tendencies of general companies. See Mieno (2002).

Figure 1 Macro Major Indices



Sources: Compiled from the Asian Development Bank's Key Indicators 2004 (www.adb.org/statistics), and the values for the year 2004 are compiled from the Bank Indonesia Website (http://www.bi.go.id/).

Chapter 1: Corporate Finance of Indonesian Companies after the Crisis

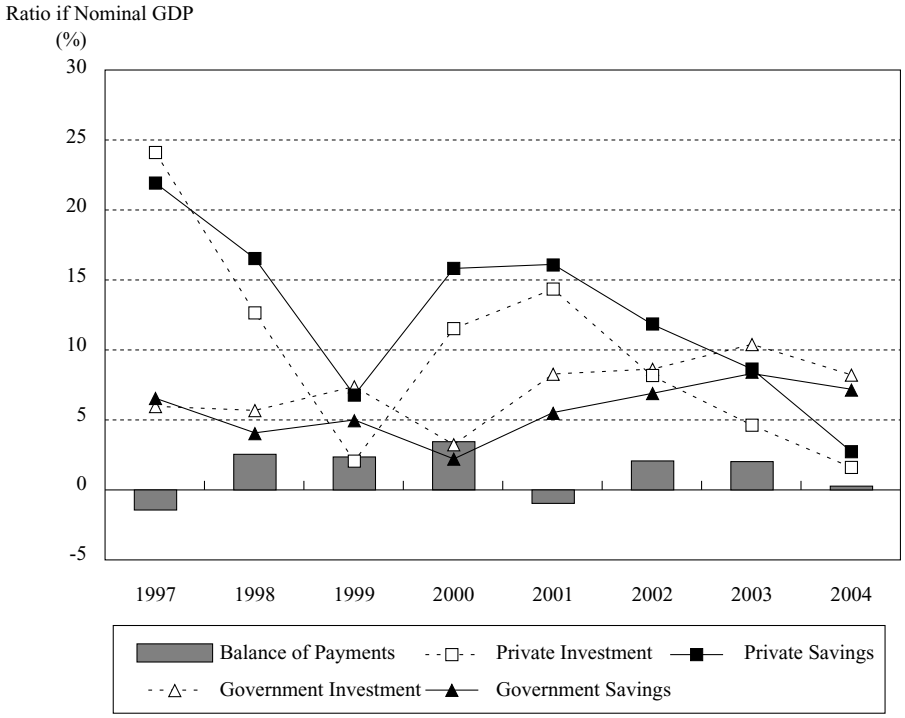
1. Macro Financial Environments of Indonesia

Although Indonesia's economy was hit hard by the Asian crisis, the macroeconomic climate has been on track for recovery since 2000, due to financial and corporate reforms (Figure 1). In 2003, the real GDP returned to its pre-crisis level, while the inflation rate remained high compared to that before the crisis. In spite of some negative impact of the tsunami damage in Banda Aceh, the macro economy continued to recover steadily in 2004. The foreign exchange rate has been relatively stable since 2001, although its fluctuation is greater than before the crisis due to the shift to a floating exchange rate system.

Meanwhile, the macro fund balance of Indonesia has changed significantly after the Asian crisis (Figure 2). The ratio of savings and investment to GDP had decreased substantially during the financial crisis and started to recover in succeeding years, but neither of them has returned to the level of before the crisis. In Indonesia's economy as a whole, the savings rate has been higher than the investment rate. The excessive savings are causing an underlying trend of favorable balance on the current account. The supply and demand of funds by sector suggests that in the government sector both the savings and investment rates are higher than those before the crisis, which leads to the conclusion that the government sector is unprofitable. On the other hand, the supply and demand of funds in the private business sector shows a sharp drop in the investment rate. The private sector as a whole is producing profits, with the savings rate higher than the investment rate.

The banking sector, which is the core of the financial sector, suffered serious damage by the Asian crisis. However, it continues to be at the core of the financial sector even after the crisis, assuming a major intermediary function for domestic resources. The ratio of total bank balance to GDP was 39.8% in 1997 and 45.7% in 2003, hovering around the same level. At the same time, however, a significant change took place in financial intermediation (Figure 3). The financing activities of banks show that the volume of borrowings decreased while that of deposits increased. During the period from 1997 through 2003, the ratio of borrowings from foreign markets to total assets dropped from 11.2% to 1.8% and the ratio of debt payable to total assets decreased from 3.8% to 0.3%. Meanwhile, the ratio of checking deposits to total assets grew from 10.7% to 18.4%, while the ratios of saving deposits and time deposits increased from 9.1% to 24.4% and from 20.0% to 30.5%,

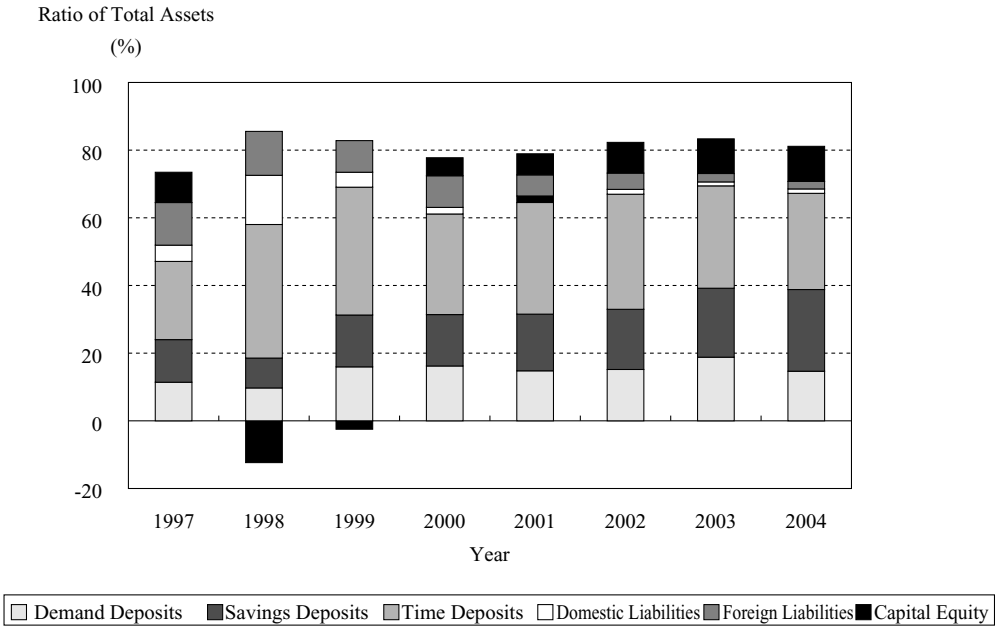
Figure 2 Balance of Savings and Investment



Note: Government investment is calculated based on government capital spending, while government savings is calculated from the balance of government revenue and government expenditure. Private investment is calculated by using the Balance of Payments, while private savings is calculated from the balance of national savings and government savings. The formula for calculating private investment is: Private Investment = Private Savings + Government Savings + Balance of Payments - Government Investment

Sources: Compiled from the Asian Development Bank's Key Indicators 2004 (www.adb.org/statistics), and the values for the year 2004 are compiled from the Bank Indonesia Website (http://www.bi.go.id/).

Figure 3 Financing Activities of Commercial Banks

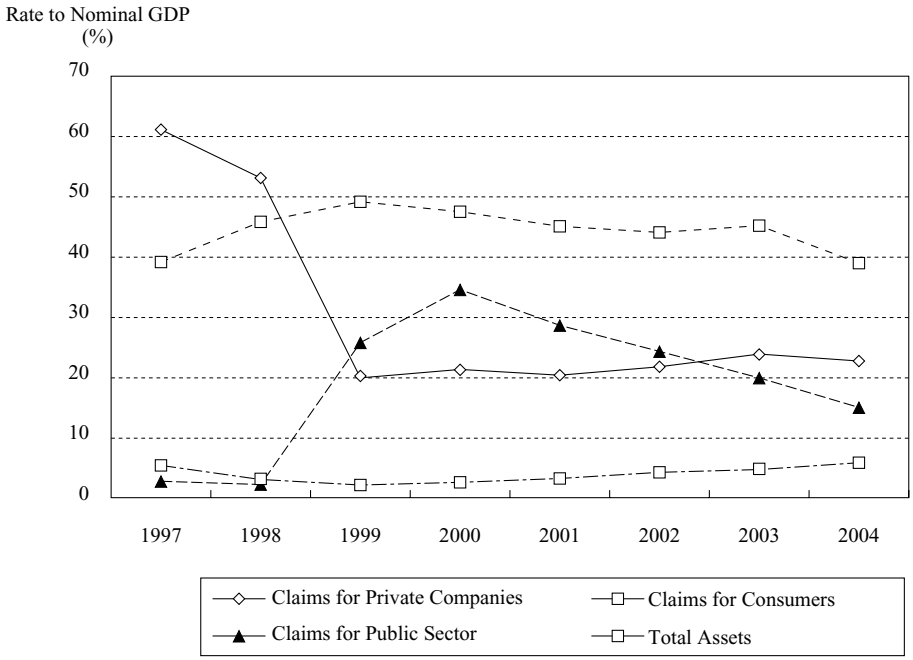


Source: Compiled from data provided by Bank Indonesia (http://www.bi.go.id/).

respectively. The ratio of capital stock to total assets dropped sharply due to the crisis but recovered in 2003 to 6.3%, nearly equal to the level of 1997.

The financing activities of banks also show that the rate of lending to private companies significantly declined due to the Asian crisis (Figure 4). The ratio

Figure 4 Assets Management of Commercial Banks



Source: Compiled from data provided by Bank Indonesia (http://www.bi.go.id/).

to GDP of outstanding balances of loans to private companies dropped to 21% in 2000 from over 60% in 1997, which caused the balance of government bonds to increase rapidly after injection of public funds to banks and their business restructuring. Due to the recovery of Indonesia's economy in succeeding years, the rate of lending to private companies recovered to 24% in 2003, and the rate of government bonds started to decrease gradually in 2000. Another trend following the Asian crisis is that the rate of lending to consumers started to increase only gradually, even after the economic recovery.

Financing activities through the stock market have been increasingly important since the crisis, which dealt a heavy blow to the function of banks as financial intermediaries (Figure 5). The ratio of outstanding shares of listed companies to GDP was no more than 9.5% in 1997, but started to grow in 1998 to reach 13.6% in 2003, about half as high again as that before the crisis. The number of listed companies also increased to 411 in 2003 from 306 in 1997.[3]

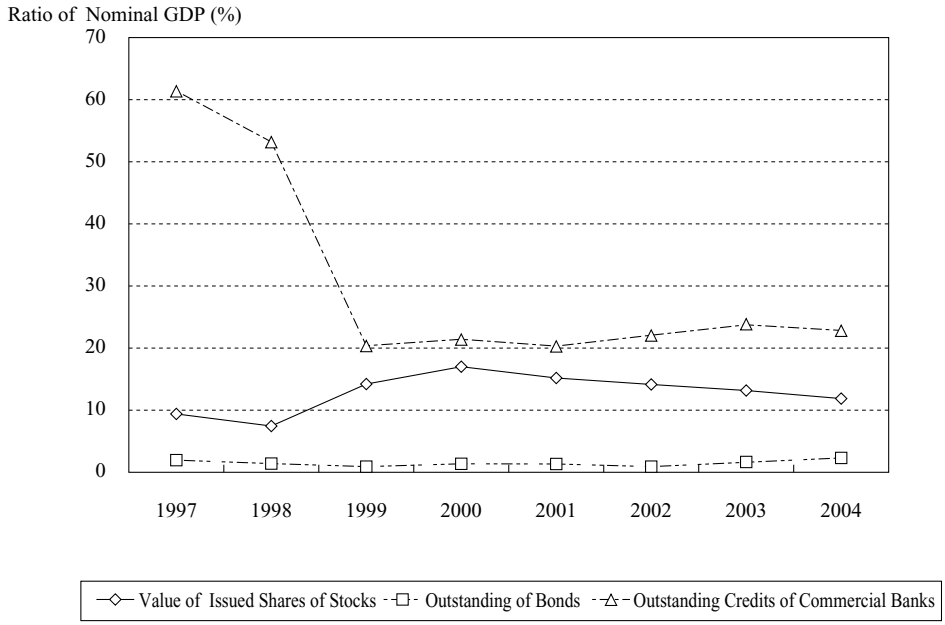
Despite a rise in the debenture market occasioned by the crisis, the scale of fund raising from it is still smaller than that from banks and the stock market, which exemplifies its limited financial function. The ratio of outstanding debenture balance of listed companies to GDP was 2.6% in 1997 but in 2003 recovered to 2.8%, exceeding that of before the financial crisis, after it had dropped to 1.8% in 1999.[4] The number of companies issuing debentures grew from about 70 at the end of 1997 to 134 at the end of 2003.

2. Reforms of Banks and Private Companies

In Indonesia after the Asian crisis, restructuring of the financial sector and private companies was implemented with a focus on the economic reconstruction of banks deeply affected by the crisis. Full-scale reorganization of banks and enterprise groups was put in hand, along with restructuring of capital structures through injection of public funds for the liquidation of failed banks, disposal of banks' non-performing claims by IBRA, and the Jakarta Initiative for solution of the external debt issues of

3 The value of outstanding shares (nominal) was 60 trillion rupiah in 1997 and 243 trillion rupiah in 2003.
4 The value of outstanding debentures (nominal) was 164 trillion rupiah in 1997 and 500 trillion rupiah in 2003.

Figure 5 Changes in Financing Methods of Private Companies



Note: The outstanding shares and the bond issued are based on the data of listed companies.
Source: Compiled from data provided by Bank Indonesia (http://www.bi.go.id/).

individual companies.

At the same time, reforms of banking systems and corporate governance structures have been implemented for solution of the non-performing asset problems of national banks and that of collusion between private banks and specific enterprise groups, which are seen to have caused aggravation of the financial crisis (Komatsu [2005]). The core of such projects includes tightening of prudence regulations for banks, tightening of governance regulations for listed companies, and development of legal systems such as for bankruptcy. Such restructuring of capital structures and reforms of financial systems were aimed at the dissolution through new management disciplines of collusion between banks and private companies, and they exercise a considerable influence over the financing structures of companies as described below:

(1) Influence of Disposal of Banks' Non-performing Claims

The ownership structure reform of the banking sector was implemented with a focus on extensive and progressive restructuring of banks along with disposal of non-performing claims. Eventually, particular ownership structures of banks and enterprises that emerged as serious problems before the crisis were dissolved as a result of nationalization and recapitalization of most of the major regional banks.

The total number of nationalized or recapitalized banks from 1997 through 1999 was 38. The relevant assets accounted for 67% of the total assets of the banking sector. The assets of the banks that survived without any reconstruction were no more than 17% of the total assets of the banking sector, 9% of which were local branches of foreign banks or banks jointly operated with foreign financial institutions (Sato (2004a)). Nationalized banks sold to foreign and domestic investors rejoined the market by 2003, following liquidation and consolidation by IBRA.[5]

The injected public funds were mainly financed by issuance of government bonds. These were to be held by recapitalized banks in proportion to the

5 Before the financial crisis, foreign investors were limited to holding a maximum 50% of the share capital. After the financial crisis, the limit of shares able to be held by foreign investors was raised as high as 99%.

6 See Takayasu (2005) and Ogushi (2002). The fixed-rate bond was converted to a floating-rate bond with a lower interest rate after redemption in 2004.

Table 1 Chronological Table of Financial and Corporate Reforms in Indonesia

Year	Month	Bank-Related Events	Reforms of Financial Systems	Corporate-Related Events
1997	Oct	The government participated in the IMF aid program.		
	Nov	The government closed down 16 private banks (First Bank Restructuring Program). →Increase of Banks' Insecurity and Expansion of Support for Liquidity Improvement by Bank Indonesia	The government started to guarantee deposits up to 20 million rupiah.	
1998	Jan		The blanket guarantee system (debt guarantee for all deposits) was introduced. The Indonesian Bank Restructuring Agency (IBRA/BPPN) was established under the Finance Ministry.	
	Feb	IBRA placed 54 private banks under its control (Second Bank Restructuring Program).		The law concerning annual corporate financial information (#24 in 1998) was issued.
	Apr	IBRA jointly established seven private banks and placed seven banks including one national bank under its control (Third Bank Restructuring Program).	IBRA had no legal authority to reconstruct failed banks or to liquidate the assets.	The order of enforcement for revision to the bankruptcy law was enacted.
	May	IBRA placed under its control BCA which was hit by a run on a bank.		
	Jun			The Indonesian Debt Restructuring Agency (INDRA) was established as a government bargaining agency for external private debts. The order of enforcement for revision to the bankruptcy law (#4 in 1998) was enacted.
	Aug	IBRA closed down three out of eight private banks under its control and nationalized four banks including BCA and Danamon (Fourth Bank Restructuring Program).		Commercial courts for bankruptcy litigation were established.
	Sep	Bank Indonesia announced its public fund injection plan for private companies. →The government postponed for the third time the selection of applicable banks, which had been scheduled for the end of December.	First Issuance of Government Bonds for Restructuring of Banks →Bank Indonesia conducted adequacy examinations for shareholders and management of banks to which public funds are to be injected.	The Jakarta Initiative Taskforce (JITF) was established as a government arbitration agency for external and domestic private debts.
	Nov		Revision to the Bank Law (#7 in 1992) The provisions of Bank Indonesia's independent authorities, strict punishment for fraud, the deposit insurance organization and the Sharia Law are newly added to the regulations. Bank Indonesia obliged all the banks to raise their capital adequacy ratio to 4% or more by the end of 1998. →The minimum requirement was changed later.	
1999	Feb		The authorities of IBRA were clarified by government order (#17 in 1999).	
	Mar	The government finalized the restructuring plan for private banks. It closed down 19 banks in category C (CAR: under 25%) and 19 banks in category B (CAR: 25% or above and under 4%) and nationalized 7 banks and injected public funds to 9 banks in category B. The remaining banks (74 banks in category A) were allowed to continue (Fifth Bank Restructuring Program).		The antimonopoly and unfair competition prohibition law (#8 in 1999) was established.

			The new central bank law (Law #23 in 1999) was enacted for regulating the authorities and independence of Bank Indonesia. IBRA excluded the former owners from management of national banks.	
	Apr			The consumer protection law (#8 in 1999) was enacted.
	Jul	The merger of nine national banks with BCA and Danamon was decided.		The revised law concerning annual corporate finance information (#64 in 1999) was issued. The corporate governance national committee was established.
	Aug	The merged four national banks started business as Bank Mandiri.	The shareholder management resigned from BII, a public fund injected bank.	The arbitration law (#30 in 1999) was enacted.
	Sep			The transfer mortgage law (#42 in 1999) was enacted.
	Oct	Bank Mandiri, a national bank, started to receive public fund injections.		
2000	Jan	Bank Indonesia closed down 1 financially troubled private bank.		
	Feb		BNI, a national bank, replaced its top management. The government bond market was established on the Surabaja Stock Exchange.	
	Mar		The internal supervisory committee was established in IBRA.	The national committee released the Good Corporate Governance Code (1st Edition). Bapepam revised the guideline for preparing financial statements of disclosed companies.
	Apr	Injection of public funds started for BNI, a national bank.		
	May	The stocks of BCA held by the government were partly sold to the market by initial public offering.		Bapepam issued a circular letter (SE-03/PM/2000)to recommend establishment of an accounting audit committee for disclosed companies.
	Jul		The external supervisory committee was established for IBRA.	
	Oct	Bank Indonesia closed down two financially troubled private banks.		
	Nov	The public fund injection plan was completed.		
2001	Jan		Bank Indonesia obliged all the banks to raise their capital adequacy ratio to 8% or more and to lower their nonperforming claim ratio to 5% or less by the end of 2001.	
				The Jakarta Stock Exchange issued a notice of resolution (#339 in 2001)concerning establishment of an independent auditor and an audit committee for listed companies.
	Aug			The judicial foundation law (#16 in 2001) was enacted.
	Oct	Bank Indonesia closed down one financially troubled private bank.		
	Nov	The merger of four public fund injected banks of which CAR was 8% or under with Bank Bali, a nationalized bank, was decided.		
2002	Mar	The stocks of BCA, a nationalized bank, held by the government were partly (51%) sold to an investment association in the U.S.		
	Aug			The Minister of State in charge of national companies for Good Corporate

				Governance was appointed (#117 in 2002).
	Sep	The five nationalized and public fund injected banks were merged and reborn as Bank Permata.	The government bond law was enacted, granting domestic issuance of government treasury bills.	
	Nov	The stocks of Bank Niaga, a nationalized bank, held by the government were partly (51%) sold to Malaysia.		
	Dec	Nonperforming claims (18 trillion rupiah) were transferred again from four nationalized banks to IBRA.		
2003	Feb	Lippo Bank, a public fund injected bank, was suspected of unfair stock price manipulation.		
	May	The stocks of Danamon, a nationalized bank, held by the government were partly (51%) sold to Singapore and an investment association of Deutsche Bank.		
	Jul			Bapepam issued a notice of resolution (Kep-27/PM/2003) concerning reporting on the use of funds raised from markets.
	Aug			The national company law (#19 in 2003) was enacted.
	Oct	The stocks of BII, a public fund injected bank, held by the government were partly (51%) sold to Singapore and the investment association of Korea National Bank. Credit fraud at BNI, a national bank, was detected.→Replacement of Top Management		
	Nov	Initial Public Offering of BRI (National Bank)		
	Dec	The illegal lending case of BRI, a national bank, was detected.		Bapepam issued a notice of resolution (Kep-40/PM/2003) concerning directors' responsibilities in annual reports. Bapepam issued a notice of resolution (Kep-41/PM/2003) concerning establishment of an accounting audit committee and operating rules.
2004	Jan		Revision to the Central Bank Law The provisions concerning the responsibility of reporting to the Diet by Bank Indonesia and the regulatory authorities for Bank Indonesia were regulated.	
	Apr	Bank Indonesia closed down two financially troubled private banks. The stocks of Bank Mandiri, a national bank, were sold by initial public offering.	IBRA was dissolved.	
	Aug		The law of establishment of LPS (deposit insurance organization) was passed in the Diet.	
2005	Dec	Bank Indonesia suspended the business of BG, a financially troubled private bank.		
	May	Bank Mandiri was suspected of illegal lending of 1 trillion rupiah.		

Sources: Sato (2004A), Sato (2004B), Takayasu (2005)

capital contribution by the government. The system provided profit-making sources, as well as funds for injection, to banks after the financial crisis.[6]

As most regional banks were nationalized or recapitalized, the relationship between banks and enterprise groups significantly changed after the crisis in terms of capital structure. It is often said that companies saddled with excessive debts are excessively funded by a bank in the same enterprise group. However, dissolution of the capital structures apparently created difficulty in the conventional collusion between banks and companies.[7]

(2) Tightening of Prudential Regulation for Banks

With regard to maintaining sound bank management, regulatory authorities were strengthened in the wake of establishment of Bank Indonesia's new organization and of stronger bank inspection powers, while Prudential Regulation for banks were further tightened. Dispensation of favors to specific companies has become difficult, due to clarification of bank management responsibilities and to tightened regulations.

Tightening of Prudential Regulation was achieved by raising the minimum capital adequacy ratio from 4% to 8%[8] and of increasing the minimum capital amount required for entry to the banking market. Furthermore, the legal lending limit for lending to companies in the same enterprise group was lowered to less than 20% (affiliate companies: less than 10%) of the total bank assets and the net open position of foreign exchange was regulated, as a general rule, to less than 30% of owner's equity. For banks of which the management was deemed to be unsound, the liquidation process was clarified by regulations specifying dissolution patterns suited to each situation, and the deposit insurance organization was developed for bankruptcy of banks. As regards the shareholder responsibilities of such banks, penalties were toughed for those who violated criminal regulations.

To strengthen the operation of bank inspection authorities, Bank Indonesia conducted a drastic organizational change which improved the independence of its inspection functions and increased the supervisory authority over it of the government and the Diet. In the 1998 revision to Bank Indonesia's charter, the authority for issuance and cancellation of bank licenses was transferred from the Minister of Finance to Bank Indonesia so that administrative control over banks was integrated in the central bank. By the same revision, in 1999 Bank Indonesia was regulated as an independent national organization not interfered in by other government bodies. Although appointment of the top management required proposal by the President and approval by the Diet, it was decided that neither the President nor the Diet has a right of dismissal. After the emergence in 2004 of the corruption problem among staff of Bank Indonesia, its charter was reformed for stricter supervision over the bank itself, the accountability of Bank Indonesia to the government and the Diet was regulated, and the dismissal process for top management who violated the regulations was clarified. The system of triennial audit for Bank Indonesia was changed to that of annual risk audit conducted under the bank supervisory program in accordance with international standards.

(3) Improvement of Corporate Governance

Following the crisis, reforms of the bankruptcy system and corporate governance for listed companies were implemented, along with restructuring of the banking sector. It is necessary for external investors in the capital market to easily monitor corporate conduct in order to strengthen governance by shareholders. Reform of the bankruptcy system is essential for strengthening governance by creditors. These reforms are expected to improve transparency of corporate management, to protect the interests of external investors and creditors, and to mitigate investment risks.

In 2001, appointment of an independent auditor and an accounting audit committee, as well as

7 When a recapitalized bank rejoined the market, the former owner allegedly purchased the sold bank through an agent to effectively reacquire the management right.

8 Further tightening to 12% is being examined and planned for the future.

expansion of the duties of a corporate secretary, was made obligatory by the Jakarta Stock Exchange, which made monitoring by external investors quite easy. Independent auditors having no stake in the company accounted for 30% of all corporate auditors, so the regulatory power of external investors was secured. An accounting audit committee was to be comprised of three or more members, including an independent auditor as the chairman. Members other than the chairman should be independent outsiders, including at least one expert in accounting and finance. The duties of a corporate secretary, who had originally been supposed to liaise between the company, the regulatory authorities, and external investors, were defined to be preparing registers of stakeholders, registers of major shareholders, and minutes of board meetings, as well as operating annual general meetings for shareholders. In 2003, the capital markets regulatory agency settled that directors are responsible for an annual report, which clarified responsibility in the information disclosure process.

The focus of corporate governance reform for listed companies is placed on: (1) establishment of a regulatory function independent from the company and supervised by a corporate auditor independent from existing corporate auditors, directors or shareholders; (2) consolidation of internal information management by appointment of an independent auditor and a corporate secretary; (3) enhancement of information disclosure capacity through the information management function appended to a corporate secretary.

However, it could hardly be said that the actual ownership structures of Indonesia are fully considered in these reforms. Thus, further improvement is necessary. With regard to the appointment of independent auditors and accounting audit committees, Sato (2004b) points out that there is no incentive for monitoring an independent auditor or an accounting audit committee, since major shareholders of Indonesian companies have so far themselves been its owners. Even though some progress has been recognized in information disclosure, the capacity for monitoring minor shareholders, including institutional investors, is considered to be still low due to insufficient infrastructure for efficient use of disclosed information. Therefore, since it is hard to achieve satisfactory results by internal audit systems, Sato suggests that companies and their supervisors should be monitored by government bodies.

It is widely believed that, although reforms of corporate finance have been implemented, these reforms have not been sufficiently effective. Development of commercial courts and reform of the bankruptcy law opened the door for legal procedures by creditors against failed companies, something which had been prohibited before the financial crisis, and for governance of corporate conduct thereby. However, Kaneko (2002) points out that legal liquidation of creditors' equity has to date not been functioning well, in spite of enactment of laws, due to legal professionals' corruption, bribery, and lack of experience.

Chapter 2: Analytic Views of Indonesian Listed Companies

1. Adjusted Modigliani-Miller Theory and Agency Cost

According to the Modigliani and Miller (1958) theory (hereinafter referred to as the MM theory), a corporate value does not depend on the capital structure, and corporate financing activities have no impact on the corporate value at all when there are a complete capital market, no corporate tax, no information dependence, no transaction cost and exogenous business earnings. However, as the preconditions of the MM theory are not likely in the real world, an adjusted MM theory based on reality is required. Figure 6 is a chart by Nishioka & Baba (2004) showing the relationship between a company's capital structure, capital cost and corporate value in consideration of bankruptcy risks and the impact of corporate tax. The higher the company's debt ratio d is, the lower the average capital cost becomes. However, when the debt ratio is high, the risk of bankruptcy also becomes high to raise the risk premium. The total capital cost is the summation of

9 See Nishioka & Baba (2004) for details.

the two. The debt ratio is lowest at the point d*. This rate is the optimal debt ratio when the corporate value is maximized.[9]

Aside from complete capital market and information dependence, determinants of corporate value, which are determinants of optimal corporate capital structure, are significantly affected by agency cost, taking account of an asymmetry postulate of information.[10] Since Jensen and Meckling (1976), of all the conflicts of interests generating agency cost, priority has been given to the conflict of interests that arises in the relationships between shareholders (= clients) and management executives (= agent) and between creditors (= clients) and shareholders (= agent).

The agency cost issue arising from the relationship between shareholders (= clients) and management executives (= agent) resides in management executives' pursuit of private profits and shareholders' desire to maximize corporate value. This issue could be solved by raising the corporate debt ratio and by decreasing free cash flows that management executives can use. Meanwhile, the agency issue between creditors (= clients) and shareholders (= agent) arises from incentives for shareholders to receive good dividends by appropriating borrowed money to dividends or by making management executives undertake high risk ? high return investments using the limited liability system. In this case, lowering the corporate debt ratio is one of the adequate measures to alleviate the issue and to enhance corporate value.

The seriousness of the agency cost issue depends on companies' management environments. According to Noma (2000), when the conduct of management executives is barely monitored from outside, when a company's growth or investment opportunities are limited, when a company's free cash flows are abundant, or when a company's liquidation value is high, conflicts of interests that arise in the relationship between shareholders (= clients) and management executives (= agent) are easily aggravated. Under such conditions, raising the corporate debt ratio leads to solution of the agency cost issue. Conversely, when the bankruptcy cost is high or when shareholders can easily change the company's asset quality or dividend policy to those in which they can enjoy an advantage, conflicts of interests that arise in the relationship between creditors (= clients) and shareholders (= agent) are again easily aggravated. In such cases, lowering the corporate debt ratio leads to solution of the agency cost issue and enhancement of the corporate value.

An asymmetry postulate of information about corporate management, along with the disclosure level of corporate information, is a critical factor of the agency cost issue. For instance, when a bank has a long-term relationship with a company, the asymmetry postulate of information is solved for both sides and the company's agency cost for bank loans is reduced. If there is a change that reduces the agency cost of owner's equity, a lower debt ratio is desirable for the company. On the other hand, if there is a change that reduces the agency cost of liabilities, a higher debt ratio is desirable.

2. Optimal Capital Structure of Indonesian Listed Companies

(1) Concentrative Ownership Structures and Agency Cost

One of the characteristics of Indonesian listed companies is highly concentrative ownership structures. Shareholders have ultimate control over management, so that conflicts of interest that arise in the relationship between management executives and major shareholders are considered to be limited (Sato (2004a and 2004b)). Since even major companies are largely controlled by certain minor shareholders or enterprise families, the agency cost issue between management executives and major shareholders is not so serious. The public-offering ratio is not so high,

10 The agency cost approach, which focuses on the cost arising from conflicts of interests among management executives, shareholders, and creditors, and which requires adjustment, is well known. There are other approaches, such as the trade-off approach based on the improved MM theory with a focus on company's benefits and the drawbacks of increased debts, and the signaling theory or pecking order theory, analyzing capital structure issues within the framework of information economics. See Tamura (1997) for details.

and control over management by major shareholders is typical, even in the case of Indonesian listed companies.

The existing studies show that the information disclosure level of listed companies in Indonesia is relatively low. As a result, the asymmetry postulate of information between creditors and management executives (= major shareholders) is high and the agency cost between the two is accordingly also high. Therefore, the serious agency issue of fund raising is predicted to be significant in the relationship between creditors and management executives (= major shareholders) or between small-business shareholders and management executives (= major shareholders).

Where there is a serious agency cost issue in the relationship between creditors (= clients) and management executives (= major shareholders = agent), the agency cost becomes high when funds are raised by loans. Hence, it is expected that high-profit companies with high retained earnings tend to reduce external borrowings. A company's collateral capacity is also critical as a factor of liability agency cost. The larger the asset scale for corporate collateral is as compared to that of debt, the more the liability agency cost is reduced. Therefore, in the case of companies with high collateral capacity, the optimal debt ratio is expected to be high. For financing by borrowed funds, a company's market visibility is a critical factor. The higher the market visibility is and the more widely the corporate management is known, the lower the asymmetry postulate of information is. When the business scale, the sales volume, and the asset scale, are larger, the agency cost generated between creditors and the company would be lower and the optimal debt ratio would be higher.

This is illustrated in Figure 7 by modifying the model of Nishioka & Baba (2004). If the agency cost issue between creditors (= clients) and management executives (= major shareholders = agent) is serious, the average funding cost shifts to the upper side and the optimal debt ratio goes down to d**. Meanwhile, if the collateral capacity is high, the shift of average funding cost to the upper side becomes marginal and the optimal debt ratio is modestly lowered to d***. The effects of high corporate visibility are equal to those of high collateral capacity.

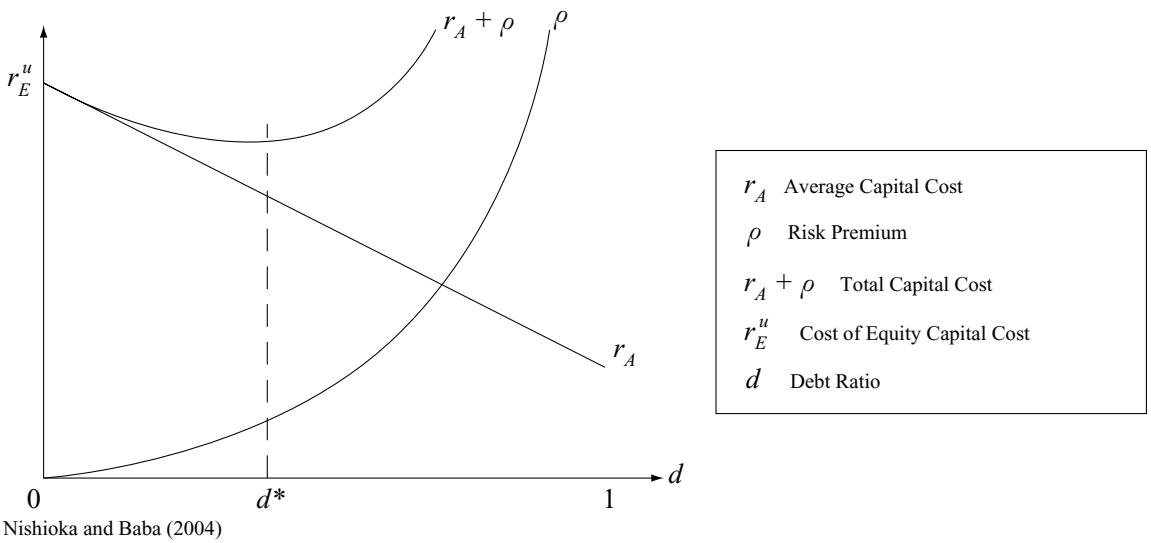
(2) Significance of Corporate Attributes Caused by Underdeveloped Systems

In developing countries where financial and legal systems are underdeveloped, there is considerable constraint on financial activities. Consequently, the tendency has been to expand such activities by externally borrowed funds through development of quasi markets where information sharing is easy and the agency cost issue barely arises. With such quasi markets, the company is apt to enjoy an advantage in liability agency cost to differentiate its financing activities.

①Existence of Business Groups

For example, as a company in a business group can

Figure 6 Optimal Corporate Capital Structure



Source: Nishioka and Baba (2004)

raise funds from a bank in the same group at a relatively low cost, the optimal debt ratio is considered to be high. This is because; (1) the asymmetry postulate of information between companies and a bank in the same enterprise group is low; (2) companies in the same group can enjoy favorable loan terms compared with other companies; and (3) companies in the same group can count on more adequate cooperation from a bank, even in a case of financial difficulties.

It is often said that one of the reasons why business groups are formed in developing countries is their advantage in financing risk money with the aid of internal capital markets. Funds from internal capital markets have the nature of internal funds for companies in the same group, so that business risks are absorbed into the funds. Particularly, the core business in a group is expected to function as a borrower of external funds, and its dependence on debts would be apt to be higher than the optimal level if it were a non-consolidated company.

Foreign companies may be taking different financing routes from those of other companies. A foreign company is generally owned and managed by its parent company and a local partner. The management information of a foreign company is shared with the parent company in its home country and the agency cost issue does not essentially occur between the two. Accordingly, fund raising through the parent company in the home country bears an agency cost which is as low as that through internal funds. Thus, capital expenditures of foreign companies are often funded through investment by the parent company.

②Political and Social Factors

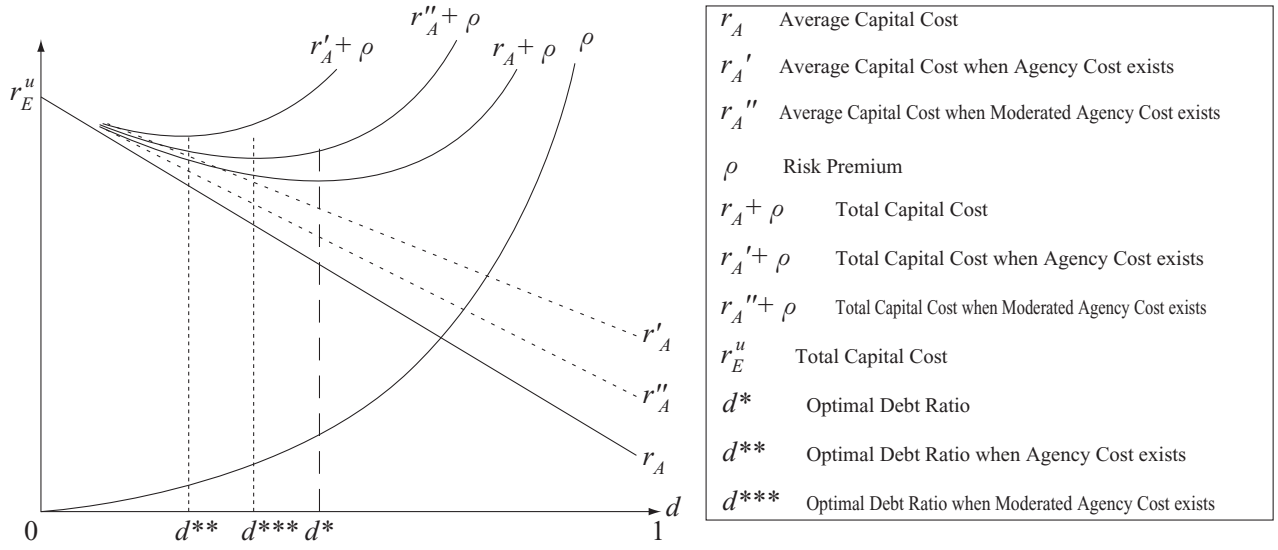
The agency cost of external borrowings may be affected by political and social factors such as territorial connections or blood relations of management executives (= major shareholders) and through the relationship with the government. Generally, the asymmetry postulate of information between investors and the company is considered to be aggravated in developing countries where information disclosure and legal systems are underdeveloped rather than in advanced countries, and the political and social factors may be used to mitigate or avoid such impediments. This is because the power of contracts is perceived as high since the code of conduct is common and social penalty rules are applied to contractual defaults (debt defaults) when contractors share the same social and cultural backgrounds.

One example is the difference between ethnic Chinese companies and non-Chinese local companies. There are common cultural and social rules for ethnic Chinese companies and Chinese banks. Conversely, as cultural and social rules for ethnic Chinese companies and non-Chinese banks are different, they cannot maintain a relationship of mutual trust. Thus, when a Chinese company is financed by a non-Chinese bank, the loan terms might be disadvantageous.[11] Either way, when a Chinese company borrows money externally, the agency cost may differ from that for a general non-Chinese local company due to the social, cultural and political backgrounds.

The agency cost arising in the relationship with creditors depends on whether the company is government-linked or not. If a government-linked company is recognized in the market as a company supported or guaranteed implicitly by the government, the risk for creditors in financing government-linked companies is mitigated. In the case of government-linked companies, information sharing through the government may minimize the asymmetry postulate of information against government-linked banks. In either case, since government-linked companies may have an agency relationship with creditors which could be different from that with general private companies, their capital structures are considered to have different characteristics from those of general private companies.

11 The local field survey shows that there is not necessarily a trusting relationship between ethnic Chinese companies and non-Chinese banks. Kwartanada (2000) also points out this issue. See Iwasaki (1997) for the relationship between ethnic Chinese companies and the government of Indonesia.

Figure 7 Agency Cost and Optimal Capital Structure



(3) Other Factors: Effects of the Asian Crisis on Corporate Restructuring

In the analysis of this paper, the impact of the Asian crisis is unignorable as a peculiar factor affecting the financing activities of listed companies. Companies under reconstruction after the crisis may, in contrast to other companies, be supported in various ways for reduction of their debts. Consequently, they are considered to be reducing debts more advantageously than unsupported companies, which would cause some difference in capital structure attributable to certain political reasons. In particular, the proportion of bank loans used mainly for short-term funds is relatively low compared to that of other companies, and greatly reduced in the case of companies under reconstruction.

Chapter 3: Listed Companies in Indonesia

1. Position of Listed Companies

The listed companies of Indonesia form the core of the country's domestic private companies. The sales of domestic private companies accounts for about 50% of the total sales of the country's top thousand companies, and 50% of the said domestic private companies are listed. In other words, half of the sales of major domestic private companies in Indonesia come from listed companies. At the same time, the proportions on a sales basis of national companies and foreign joint venture companies are about 30% and 20%, respectively, of the country's top thousand companies. However, the proportion of listed companies to national companies or foreign joint venture companies is as low as around 10% (Sato (2004a)).

In Indonesia, major domestic companies belong to some sort of enterprise group. The data of domestic private companies in enterprise groups show that listed companies effectively account for about 50% of the enterprise groups in terms of economic magnitude (Sato (2004a)).

The sales of Indonesian companies in the top hundred enterprise groups account for about 70% of the total sales of the country's top thousand companies. Moreover, the proportion of listed companies in enterprise groups tends to be higher than that of independent companies. Listed companies constitute the heart of the activities of major enterprise groups, which are themselves the core of Indonesian domestic private companies.

The listed companies represent the core major industries of Indonesia's economy, such as mining and manufacturing. The breakdown of listed companies in 2004 shows that manufacturing was the industry with the highest number of companies (143 companies: about 60%) followed by real estate (35 companies: 14%), retail & distribution (14 companies), finance (13 companies) and agriculture, forestry, fisheries and livestock (12 companies) (Figure 8). The industry in which the average corporate size is conspicuously the largest is

telecommunications, an industry of national companies, followed by mining & mining-related enterprises and by manufacturing. Meanwhile, the industries in which the average corporate size is small are hotels, travel, retail & distribution, and construction.

Listed companies in Indonesia consist of major domestic companies and represent the industries forming the core of Indonesia's future economic development. These are the areas in which large-scale resources are required and, most of all, in which consolidation of corporate finance is essential.

2. Corporate Attributes of Listed Companies and the Classification Approach

The listed companies in Indonesia include various companies with different corporate attributes in ownership and management structures. As described in Chapter 2, the financing structures of these companies seem to be somewhat different from each other. Based on the discussion in Chapter 3, the analysis presented below classifies the social attributes of listed companies.[12]

①In the classification of corporate ownership structures, major shareholders of each company are categorized as foreign-financed, Chinese, non-Chinese (local), and government-linked, on the basis of their names. Thus, the attribute of the largest number of shares held by major shareholders becomes the corporate attribute. When a company's holding company is the major shareholder, the ownership structure is classified as foreign-financed, Chinese, non-Chinese (local), Indian, and government-linked, on the basis of the name of the holding company's major shareholder.[13]

②When a company belongs to a business group, its importance and centrality are classified on the following three standards. Companies are classified as a core business only when the directors are not professional managers but the family members owning the business group, when the scale is relatively large in the group, and when the industry is a central industry in the group. Companies satisfying two of the above three standards are classified as major forces in the group.

③Judgment of whether a company is a restructured company or not depends on whether the enterprise group to which the company belongs changed before or after the Asian crisis. Specifically, companies of which the enterprise group in 1997 was the same as that in 2003 are classified as non-restructured companies, while those whose enterprise group has changed are restructured companies.

3. Financing Structures and Management Characteristics by Corporate Attribute

One of the characteristics of listed companies in Indonesia is that they have individual corporate attributes of racial and ownership structures, as described above. The relations between these racial and ownership structures and financing activities need to be clarified here.

ethnic Chinese companies account for 63% of all the listed companies, followed by foreign joint venture companies (20%), non-Chinese local companies (10%), government-linked companies (5%) and Indian companies (2%) (Figure 9). On the basis of total assets, however, the share of ethnic Chinese companies slightly declines to 42%, while those of foreign joint venture companies, government-linked companies, non-Chinese local companies, and Indian companies, are 27%, 23%, 6% and 2%, respectively. The scale of Chinese and non-Chinese regional companies is smaller than that of government-linked and foreign joint venture companies. The share of ethnic Chinese companies increased after the second financial deregulation, and

12 The classification also incorporates information on the business status of listed companies obtained through a field survey conducted at an Indonesian local company of Nomura Securities Co. Ltd.

13 When several companies constitute major shareholders of another company, such as in the case of joint-venture companies, the classification approach becomes complicated. For the purpose of this thesis, classification is simply based on the assumption that a shareholder of higher shareholding ratio is the major shareholder.

14 Another trend after the financial crisis is that there are many listed companies that remain on the market with excessive debts causing negative retained earnings. Such companies account for nearly 50% of the total. Since the average debt ratio of companies with negative retained earnings is over 100%, we will hereafter look at companies with a surplus fund which proves their sound management.

this trend has not changed since the financial crisis.

The average debt ratio of all listed companies was 74.9% in 2000 but decreased to 70.3% in 2003 and to 53.9% in 2004, which shows an overall decreasing trend for the degree of dependence on debts of listed companies.[14]

The data on debt ratios by corporate attribute show that the average debt ratios of ethnic Chinese companies and Indian companies are higher than those of non-Chinese local companies, and that the debt ratio of foreign joint venture companies is similar in trend to that of ethnic Chinese companies (Figure 10). This is consistent with the recognition that the average debt ratio of ethnic Chinese companies is higher than that of non-Chinese local companies and that the debt ratio of a Chinese company is generally high.[15]

The earning capacity of listed companies based on the pre-tax profit-earning ratio slowly declined during the period of observation (Figure 11). The data by corporate attribute show that the earning capacity of foreign joint venture companies and government-linked companies is high, and that of ethnic Chinese companies and non-Chinese local companies is almost equal. In companies other than government-linked companies, the profit-earning ratio is declining while the surplus fund is increasing.

A fixed asset ratio indicates a company's collateral capacity. Indian companies have the highest average fixed asset ratio, followed by government-linked companies, ethnic Chinese companies, foreign joint venture companies and non-Chinese local companies (Figure 12). There is no significant difference among government-linked companies, ethnic Chinese companies and foreign joint venture companies. Overall, the collateral capacity of Indian companies is high, while that of non-Chinese local companies is low.

The comparison between core companies and non-core companies indicates that core companies have a higher debt ratio and long-term debt ratio than non-core companies (Figure 13). On the other hand, non-core companies have a relatively higher bank debt ratio. The profitability fluctuation of non-core companies is larger than that of core companies, which indicates that the business risk of core companies is lower (Figure 14). The comparison of fixed asset ratio, as an indicator of collateral capacity, suggests that core companies can easily increase their debts because of their higher fixed asset ratio (Figure 15). Financing activities are different between core companies and non-core companies, which is consistent with the common belief that a core company is generally in charge of financing activities for the group.

Due to the effects of the financial crisis, companies of which the business group changed (restructured companies) are considered to have a low debt ratio as a result of debt disposal carried out for restructuring. However, while the debt ratio of restructured companies is low overall in 2000 following the financial crisis, after 2003 there is no significant difference between non-restructured companies and restructured companies (Figure 16). Although the profit-earning capacity of non-restructured companies is higher, the capacity levels of restructured companies and non-restructured companies have been similar historically (Figure 14). The fixed asset ratio, as an indicator of collateral capacity, shows the pattern that non-restructured companies are in a higher level than that of restructured companies. However, the fixed asset ratio of restructured companies has been rising by slow degrees (Figure 15).

Chapter 4: Estimation of Debt-Ratios

1. Methodology

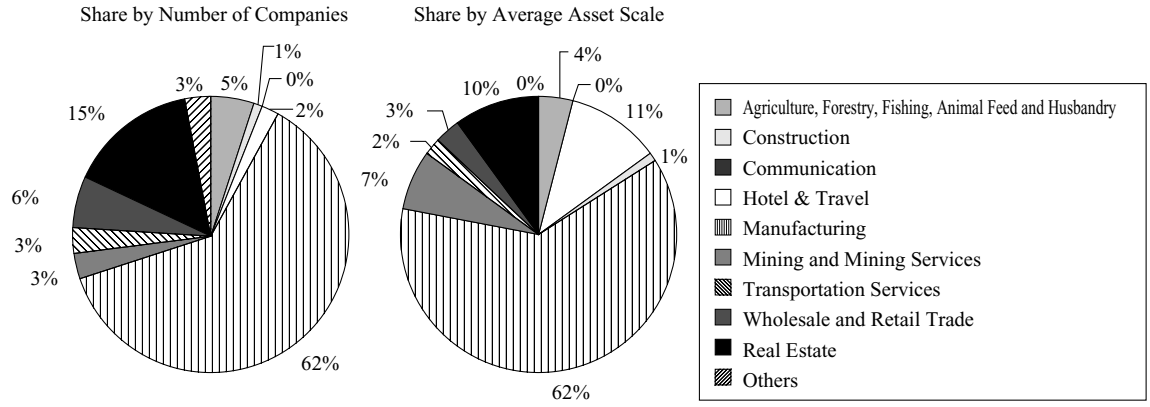
The analysis of listed companies in Indonesia shows differences in financing structures by corporate attribute. However, it is necessary to conduct a quantitative analysis controlling economic variables to identify if the above analysis results are superficial or correlative.

(1) Explained Variables

For a estimation analysis, debt ratios are used as indexes of corporate capital structure. The analysis is

15 Due to the impact of corporate consolidation and elimination, the average long-term debt ratio and the average bank debt ratio of non-Chinese local companies and government-linked companies significantly changed in the same way as the debt ratio.

Figure 8 Number of Companies and Average Asset Scale of Indonesian Listed Companies by Industry



Source: Compiled from ECFIN ed. (2004)

based on the three debt ratios, which are debt ratio (total debts/total assets), long-term debt ratio (long-term debts/total assets) and bank debt ratio (short-term bank debts/total assets), as explained variables.

The debt ratio stands for the proportion of borrowed funds to total corporate funds as a primary index of the financing structure. The tax-reduction effects of debts and business risks on the debt ratio affect the total liabilities. The debt ratio is monitored for study of the impacts of such factors on financing activities.

However, short-term debts such as accounts payable and notes for short-term funds are different in nature from long-term debts for capital expenditures and other funds invested from a long-term perspective. Accounts payable and notes are generally funded from business partners and the information asymmetry postulate of information is relatively low. As in long-term debts, the information asymmetry postulate of information between the company and debtors is high. Accordingly, the impact of agency cost is expected to be stronger in the judgment of long-term debts than of short-term debts.

Banks are the most important source of external funds for listed companies. Compared to other creditors, banks are considered to have a higher information production capacity and to be more susceptible to government regulations. The short-term bank debt ratio is used for study of determinants of bank loans. For study of determinants of listed companies' financing activities, it would be necessary to examine a comparison of estimated results of debt ratio, long-term debt ratio, and bank debt ratio.[16]

(2) Explanatory Variables

①Major Explanatory Variables

The following are used as variables impacting on debt ratios. The surplus fund of the previous year is used as a proxy variable of free cash flows. As free cash flows are the resources of which agency cost is the lowest, the more abundant the free cash flows are the lower the debt ratio is. The income tax rate of the previous year is used as an indicator of the tax-reduction effects of debts. Companies paying a higher corporate tax would theoretically increase the debt ratio in order to enjoy the tax-reduction effects of debts. The fixed asset ratio of the previous year is used as a proxy variable of collateral capacity. Since screening and monitoring them is quite easy, fixed assets are considered to be more suitable for collateral than other assets. As the information asymmetry between creditors and the company becomes low, the agency cost is reduced and the company can easily increase its debts. The logarithmic figure of corporate scale (total assets) is

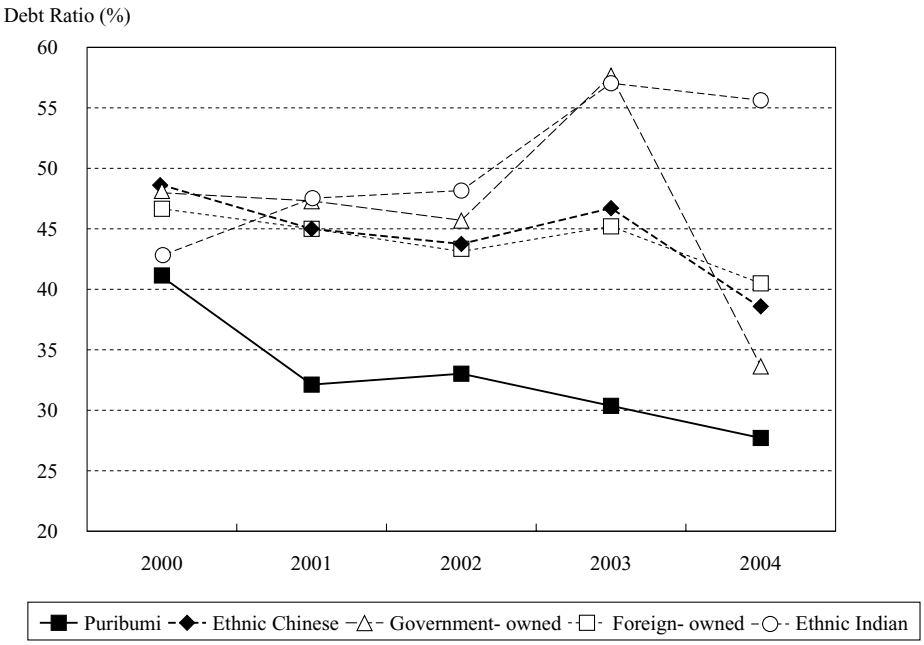
16 Indonesian banks offer long-term loans, but long-term loans are not included in the bank debts in this analysis due to restrictions on the available data.

Figure 9 Classification of Listed Companies by Corporate Attribute

		CorporateAttribute								
		Puribumi	Ethnic Chinese	Government owned	Foreign owned	Ethnic Indian	Core	Non-core	Restructured	Non-restructured
Number of Companies		21	151	9	48	4	86	154	180	60
Share of Industry (%)	Agriculture,Forestry,Fishing, Animal Feed and Husbandry	14	3	0	10	0	6	5	5	5
	Construction	5	0	0	2	0	1	1	1	0
	Communication	0	0	11	0	0	1	0	1	0
	Hotel&Travel	5	2	0	2	0	2	2	2	2
	Manufacturing	29	60	67	77	75	65	56	58	63
	Miningand Mining Services	10	1	11	4	0	3	3	2	5
	Transportation Services	10	3	0	2	0	1	5	4	0
	Wholesale and Retail Trade	5	8	0	0	25	7	5	7	3
	Real Estate	19	20	11	0	0	9	18	17	8
	Others	5	3	0	2	0	3	6	3	13

Note: The approach specified in Chapter 3 is used for the classification of corporate attributes.
Source: JBIC compiled the data from ECFIN ed. (2004)

Figure 10 Debt Ratios by Corporate Attribute



Note: The approach specified in Chapter 3 is used for the classification of corporate attributes. Only the data of non-financial firms and non-negative retained earnings are included.
Sources: Compiled from ECFIN (various years), and the data for the year 2004 obtained from the Jakarta Stock Exchange.

used as a proxy variable of social visibility. When the social visibility is higher, the asymmetric postulate of information is lower. Then, the agency cost is reduced and the company can easily increase its debts. The variance of operating profit ratios[17] is used as a proxy variable of the business risks of each company. A company with higher business risks carries bankruptcy risks increased by its debts, which would easily diminish the profit-earning opportunities of shareholders. Accordingly, the company decreases its debts.

②Corporate Attribute Dummies

As dummy variables of corporate attribute, Chinese company dummies, government-linked company dummies, foreign company dummies, and Indian company dummies are used. When the company falls under any category the variable is 1; if not, the

17 The profit-ratio variance of the previous year is calculated based on the operating profit ratios from 2000 through 2003 for avoidance of restrictions on available data and impacts of the financial crisis.

variable is 0. As described in Chapter 3, these companies are considered to be different from non-Chinese local companies in agency cost of external borrowings due to the characteristics of corporate ownership attributes. Particularly, ethnic Chinese companies can borrow money from Chinese banks at a low cost, while government-linked companies and foreign companies can borrow, respectively, from government-financed banks and parent companies in their home country or from foreign institutions. This has been said to be a factor in pushing up the debt ratio.

As dummy variables that indicate a company's position in the business group, core-business dummies and operative-force dummies are used. Since the core businesses of key industries in the business group have a long business relationship with banks and partners, and the agency cost is low, it is apparently easy to increase their debts. Where a company has control over other companies in the same group, the agency cost is considered to be low as well. By taking advantage of such credit capabilities, these companies may function to conduct financial activities on behalf of other companies in the same group. Hence, it is expected that there would be some difference in long-term financing activities.

A restructured dummy stands for the effects of large-scale business reconstruction experience. During the course of changing a business group, debt reductions and debt equity swaps are executed, which would lower a company's debt ratio compared to other companies.

③Industry & Annual Dummies

Together with variables at the corporate level, industry dummies are added for controlling the effects on financing activities peculiar to each industry. For instance, as legal regulations and degrees of information disclosure are different from industry to industry, there is some difference in debt agency cost as well. For controlling the impact of macro economic changes, annual dummies are added. Where the corporate capital structure has drastically changed due to the effects of macro economy or system reforms after the crisis, the significance of time dummies is recognized. In other words, if time dummies do not have any significance at all, such effects on the capital structure are not recognized.

(3) Used Data and Estimate Method

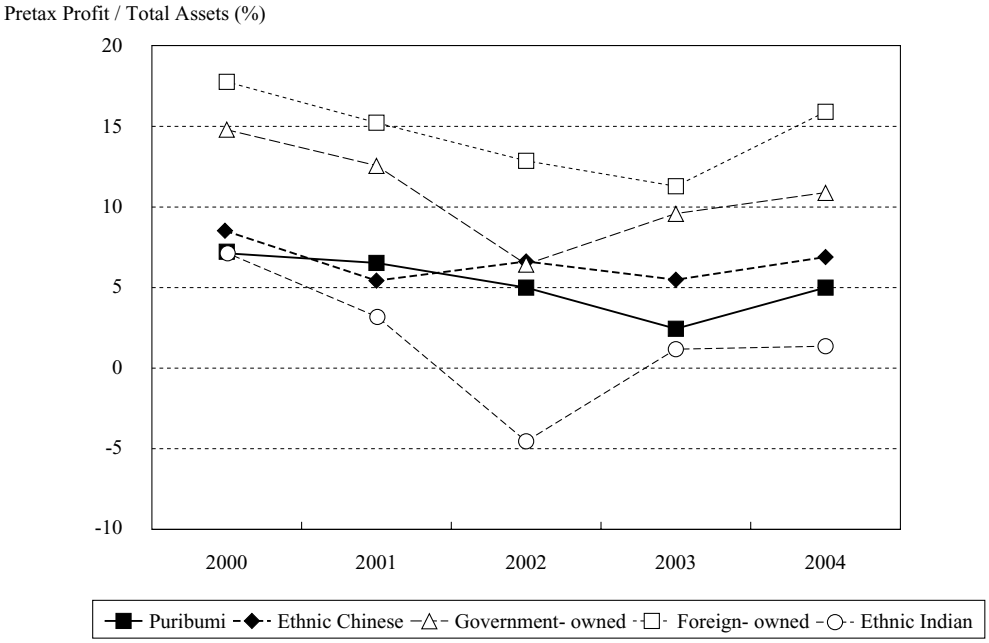
The financial data of listed companies are collected from the Indonesia Financial Market Directory (2003 and 2004 editions) issued by ECFIN. The date for 2004 were obtained from the the Jakarta Stock Exchange[18]. The Chinese dummy, the government-linked dummy, the foreign-financed dummy, the Indian dummy, the core-business dummy, the operative-force dummy, and the restructured dummy, are based on the classification of corporate attributes described in the Chapter 4.[19] With financing structures different from those of general companies, banks and other financial institutions are eliminated from the sample. Companies with negative retained earnings are also excluded from the sample. This is because many companies with negative retained earnings have excessive debts and are considered to fall under the category of bankruptcy or delisting generally. Such companies are apparently not involved in the financing activities which are assumed in the adjusted MM theory.

The estimates of each ratio are pooled in the data from 2001 through 2003 and are processed by OLS. As Indonesia's economy started to noticeably recover in the wake of investment increase in 2003, there may have been a change in corporate behavior around that time. For consideration of this possibility, dummies for 2003-2004 are created and the cross terms of other dummy variables are added to the estimate as cross dummies. The sample data for 2003-2004 are counted as 1, while other sample data are counted as 0.

18 We thank Mr.Verdi Ikhwan and Ms. Pery Barwiantini for their kind assistance in collecting the 2004 financial data of listed companies.

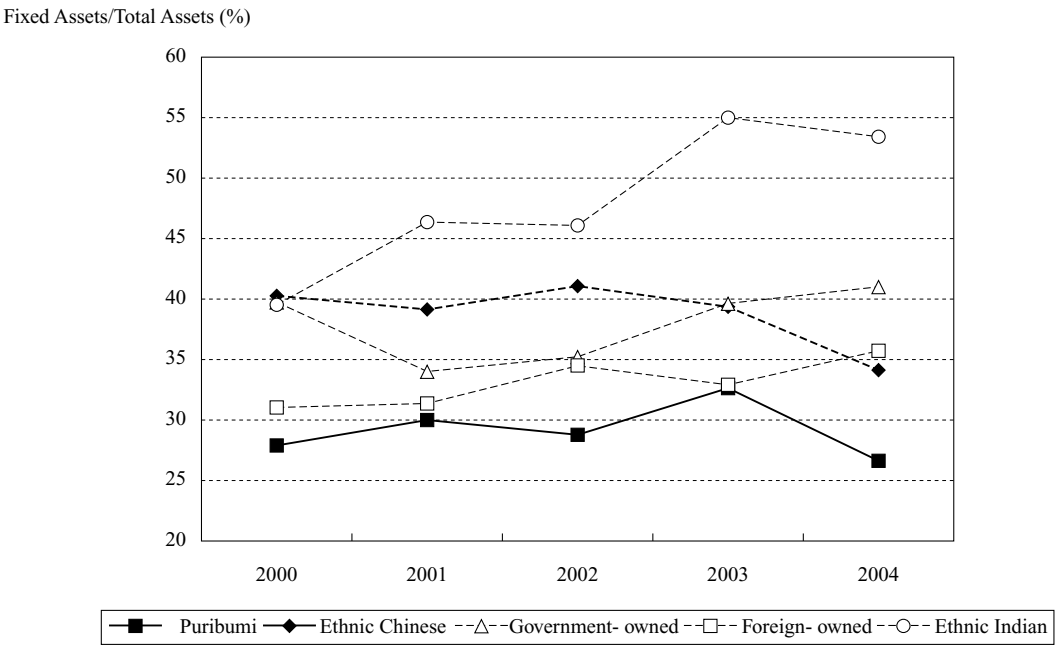
19 The detailed information on corporate classification in this paper will be provided by individual request, for the purpose of academic research only.

Figure 11 Profit-Earning Ratios Corporate Attribute



Note: The approach specified in Chapter 3 is used for the classification of corporate attributes. Only the data of non-financial firms and non-negative retained earnings are included.
Sources: Compiled from ECFIN (various years), and the data for the year 2004 provided obtained from the Jakarta Stock Exchange.

Figure 12 Fixed Asset Ratios by Corporate Attribute



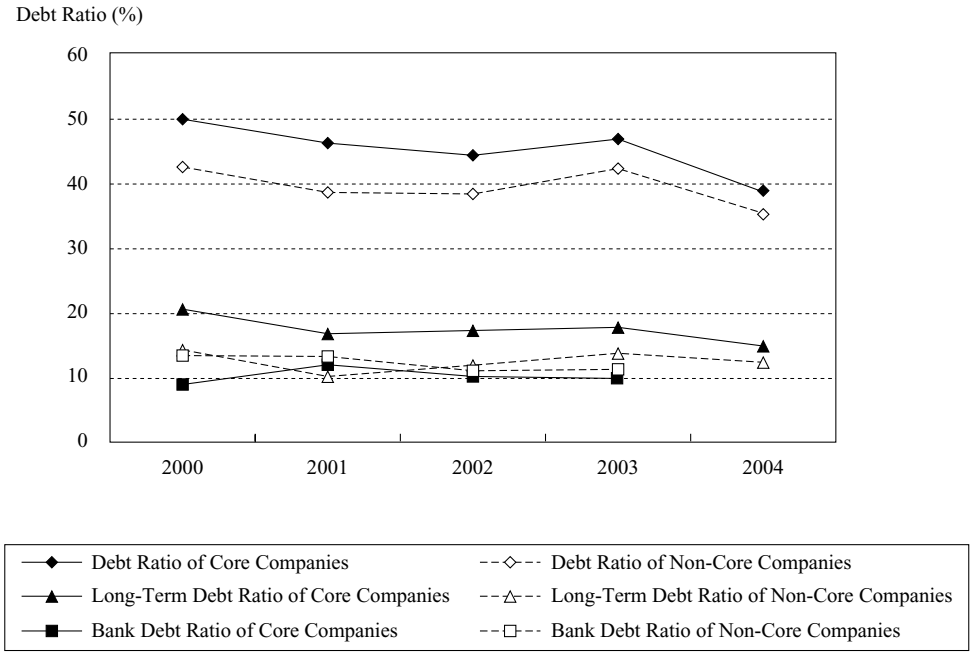
Note: The approach specified in Chapter 3 is used for the classification of corporate attributes. Only the data of non-financial firms and non-negative retained earnings are included.
Sources: Compiled from ECFIN (various years), and the data for the year 2004 obtained from the Jakarta Stock Exchange.

2. Estimate Results and their Interpretation

(1) Estimate Results

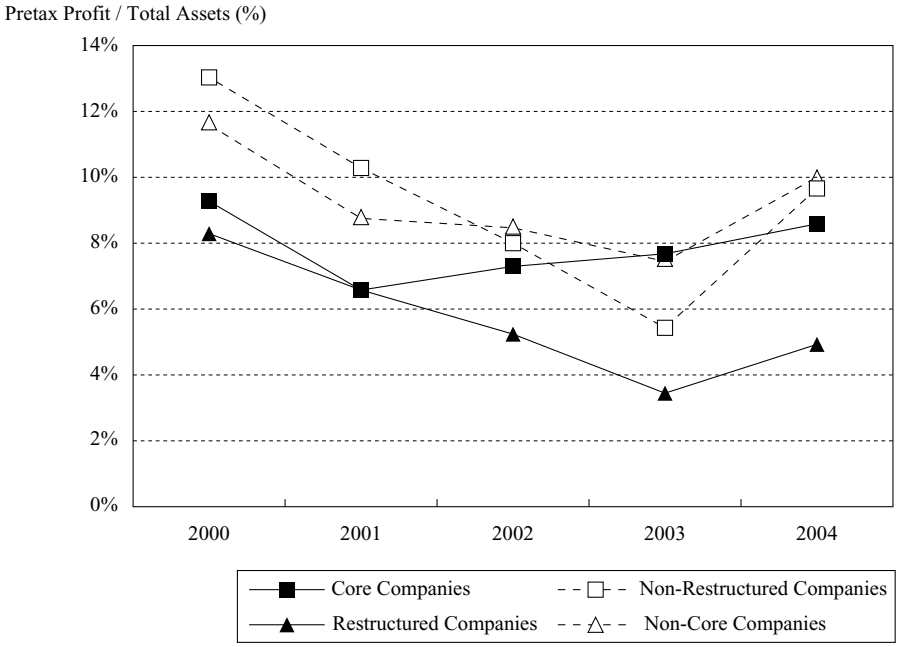
Table 2 shows that every estimate result of debt ratio, long-term debt ratio and short-term bank debt ratio is just about favorable. The persuasive power of the estimate formula is above the level of advanced researches for Southeast Asian countries. Many of the major explaining variables agree with the theoretically expected signs, which support the statistical significance of the data. Although no

Figure 13 Comparison of Debt Ratios between Core Companies and Non-Core Companies



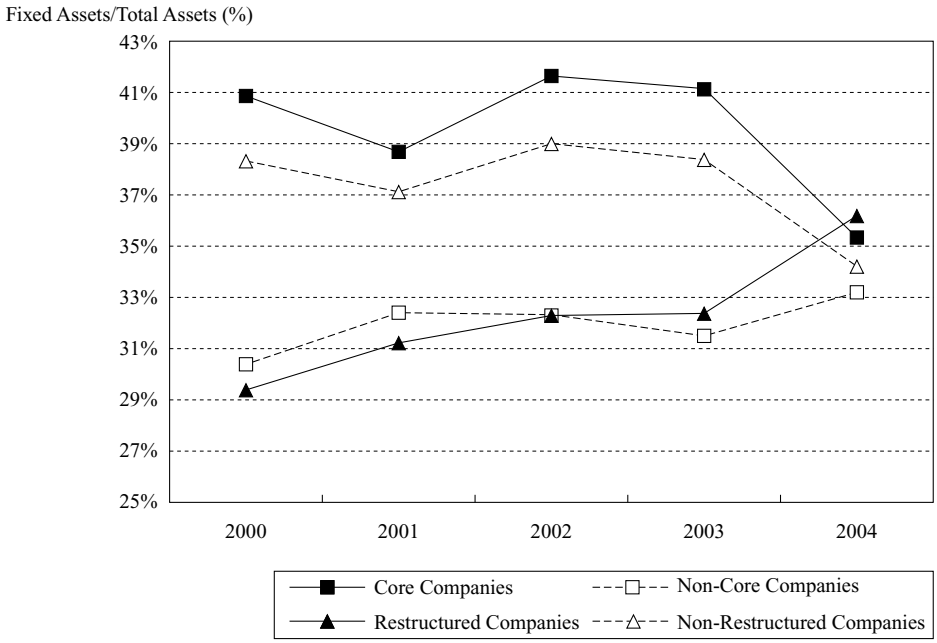
Note: The approach specified in Chapter 3 is used for the classification of corporate attributes. Only the data of non-financial firms and non-negative retained earnings are included.
Sources: Compiled from ECFIN (various years), and the data for the year 2004 obtained from the Jakarta Stock Exchange.

Figure 14 Comparison of Profit-Earning Ratios between Core, Non-Core, Restructured and Non-Restructured Companies.



Note: The approach specified in Chapter 3 is used for the classification of corporate attributes. Only the data of non-financial firms and non-negative retained earnings are included.
Sources: compiled from ECFIN (various years) and the data for the year 2004 provided from the Jakarta Stock Exchange

Figure 15 Comparison of Fixed Asset Ratios between Core, Non-Core, Restructured and Non-Restructured Companies.



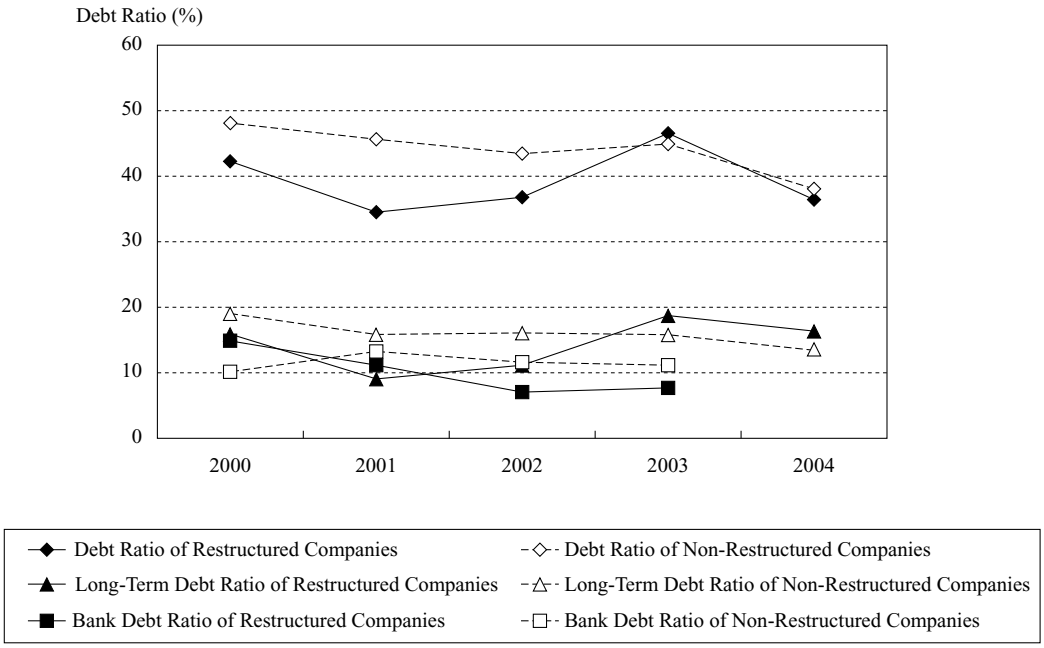
Note: The approach specified in Chapter 3 is used for the classification of corporate attributes.
Sources: compiled from ECFIN (various years) and the data of year 2004 provided from the Jakarta Stock Exchange.

impact of corporate attributes is found on the debt ratio, the difference between the long-term debt ratio and the bank debt ratio (Table 3) in some part shows that the estimate results are not basically changed even by taking account of the effects of economic recovery after 2003, with some exceptions in foreign joint venture companies.

The estimate results of debt ratio show that the coefficient of retained earnings of the previous year is a statistically significantly negative, and that companies with abundant cash flows are decreasing their debt ratio. The coefficient of income tax rates of the previous year is statistically significantly positive, contrary to the theoretical expectation. This may be because companies, when they expect profits, tend to improve their capital adequacy ratio by repaying their debts rather to increase their debts for fixing the tax amount. The coefficient of fixed asset ratios of the previous year, which is a proxy variable of collaterals, is not statistically significant. This may be because companies' collateral capacity has no significant impact on judgment of short-term content in the debts. The coefficient of corporate scales of the previous year used as a proxy variable of market visibility is positive, and statistically significant. It shows that the debt agency cost of companies with high visibility is low and that the debt ratio is high, as was expected theoretically. The variance of operating profit ratios of the previous year as a proxy variable of business risks is contrary to the theoretical expectation. As the stock market of Indonesia is underdeveloped, the asymmetry postulate of information between minor shareholders and the company is considered to be higher than that between banks and the company. Companies earning unstable profits can hardly raise funds from the capital markets, so they are predicted to depend on borrowings from banks.

With regard to the effects of corporate attributes peculiar to Indonesia, restructured dummies are negative while core-business dummies are positive, both of which are statistically significant. The former may be due to the effects of debt reduction policy after the financial crisis, the latter to high market visibility of the core business in the enterprise group and to the low agency cost that arises in the relationship between creditors, leading to easy borrowing. It is found in some industry dummies that industrial attributes have an impact on financing activities.

Figure 16 Comparison of Debt Ratio between Restructured Companies and Non-Restructured Companies



Note: The approach specified in Chapter 3 is used for the classification of corporate attributes.
Sources: Compiled from ECFIN (various years), and the data for the year 2004 obtained from the Jakarta Stock Exchange.

The estimate results of long-term debt ratio are similar to those of debt ratio. What is different from the debt ratio is that the fixed asset ratio of the previous year is significantly positive. This shows that fixed assets are assessed as collaterals in financing long-term funds in which the assessment of business risks is difficult. On the other hand, the variance of operating profit ratios is losing its significance. Those companies with strong influence over an enterprise group tend to have a high long-term debt ratio. Although industry dummies show some significant results, the significance is recognized in the industries which are different from those of the debt ratio results. In the estimate including cross terms of the dummies for 2003, foreign-financed dummies are significant.

Being significant, the short-term bank debt ratio comes out in the estimate results with a lower fit index compared to the debt ratio and the long-term debt ratio.[20] In comparison to the debt ratio, it has less significance in the retained earnings of the previous year, which shows that bank loan volume is determined regardless of cash flows. The fixed asset ratio of the previous year, as a proxy variable of collaterals, does not work significantly. The coefficient of corporate scales of the previous year, as a proxy variable of publicity, changed from positive to negative. In corporate-attribute dummies, ethnic Chinese companies show a significant tendency to be negative. Companies with strong operative forces also tend to be significantly negative. In industry dummies, the manufacturing industry shows a tendency toward lower bank debts.

(2) Interpretation of Estimate Results

It appears that the estimate results show the following. First of all, as control variables are mostly applicable, rational corporate conduct is recognized in the data from Indonesia. Above all, there is a tendency that the theory of agency cost is valid. The effects of corporate-tax reduction and bankruptcy risks on financing activities are limited, and the difference in agency cost is considered to have a central impact on the selection of fund raising

20 This may be because the sample is relatively small owing to limited availability of the data source.

methods.

The difference in estimate results by debt type shows that the fit index of long-term debt is the most favorable. In the long-term debt ratio, there is no impact of business risks such as is found in the debt ratio and the bank debt ratio. Instead, the effect of collateral capacity is conspicuous. As the uncertainty and the asymmetry postulate of information are high in the case of long-term debts, unlike short-term debts, lenders are unable to produce sufficient information solely from analysis of business risks. Therefore, the agency cost issue is not solved. Since companies with enough fixed assets and substantial collateral capacity are able to resolve the asymmetry postulate of information to a certain degree, collateral capacity is considered to have a significant impact on the long-term debt ratio.

The data of long-term debt ratio and debt ratio turn out to prove that the funding cost of internal funds is lower than that of debts. However, in the case of the bank debt ratio, screening devices such as collateral capacity to reduce the agency cost are eventually not effectively significant enough to produce the result that the funding cost of internal funds is lower than that of debts. One of the reasons why the estimate results of debt ratio are different from those of bank debt ratio is that the banks of Indonesia are still extremely risk averse, and that they have not recovered their original risk tolerance.[21] Another reason is that the regulations setting upper limits of bank loans for group companies became strict as a result of the reforms after the Asian crisis, which is said to be an impediment to banks' lending activities.[22]

Secondly, the estimate results prove that difference in corporate attributes may have some influence on companies' financing activities. Although it does not show any difference between the debt ratio and the long-term debt ratio, the comparison between ethnic Chinese companies and non-Chinese local companies demonstrates that the short-term bank debt is low. It is said that ethnic Chinese companies borrowed a great deal of money from Chinese banks before the Asian crisis. Even after the financial crisis, the average debt ratio of ethnic Chinese companies has been higher than that of non-Chinese local companies, as described in Chapter 3. However, the estimate results show the opposite of these views. The reason is that the bank reform caused Chinese banks to be nationalized, the former owners to resign, and the traditional relationship with specific banks to be resolved. The asymmetry postulate of information between ethnic Chinese companies and non-Chinese banks is more likely to be high, possibly having caused ethnic Chinese companies to reduce dependency on bank loans. Another reason may be that ethnic Chinese companies are reducing dependency on banks by leveraging business trust among ethnic Chinese companies or working through their own overseas financial channels. It is said that Chinese-origin residents in Indonesia own a considerable portion of their assets overseas and that the assets that they sheltered overseas during the Asian crisis are being returned to the country as the economy recovers.

The characteristics of foreign companies are not recognized in the simple estimate by pooling, but there is apparently a tendency that their long-term debt ratio is higher than those of non-Chinese local companies and ethnic Chinese companies when the cross terms with economic-recovery dummies during the period of 2003-2004 are used. It is interpreted as showing that foreign companies were actively committed to financing investments more promptly than other companies by leveraging close connections with their parent companies or foreign financial institutions when the economy was expected to recover soon.

Thirdly, companies with strong influence over the core business or other companies in the same group tend to prefer long-term debts and borrowings from sources other than banks. In other words, companies with weak influence over the non-core business or other companies in the group tend to

21 Due to the Asian financial crisis, many of the major companies fell into debt overhang. This experience is said to be the reason why banks are cautious about loans for major companies.

22 A deeper analysis of the banking sector is necessary for judging whether it is a voluntary credit restriction by banks or an impediment to credits which is involuntary and due to legal regulations.

Table 2 Estimated Results : Debt Ratio

	Debt Ratio Retained earnings≧0		Long-Term Debt Ratio Retained earnings≧0		Short-Term Bank Debt Ratio Retained earnings≧0	
	Coefficient	t-value	Coefficient	t-value	Coefficient	t-value
Intercept	-0.436	-3.132***	-0.608	-6.252***	0.589	4.943***
Retained earnings for the Previous Year	-0.316	-6.939***	-0.196	-6.127***	0.007	0.124
Income Tax Rate for the Previous Year	-1.294	-3.700***	-0.684	-2.640***	-0.797	-1.906 **
Fixed Asset Ratio for the Previous Year	-0.055	-1.358	0.103	2.974***	0.048	0.405
Corporate Scale for the Previous Year	0.150	9.762***	0.120	10.926***	-0.046	-2.377 **
Variance of Operating Profit Ratios	1.776	2.638***	0.624	0.813	4.965	1.753 **
Ethnic Chinese Dummy	0.020	0.130	0.047	0.640	-0.127	-2.660***
Government-owned Dummy	0.110	1.309	0.063	1.016	-0.024	-0.459
Foreign-owned Dummy	0.125	1.356	-0.000	-0.105	-0.043	-0.140
Ethnic Indian Dummy	0.154	1.732 *	0.069	1.061	NA	
Restructured Dummy	-0.043	-1.619 *	0.001	0.083	-0.073	-2.262 **
Effect Level to Enterprise Group Dummy	0.027	0.992	0.031	1.634 *	-0.054	-1.965 *
Core Business of Enterprise Group Dummy	0.027	1.810 *	0.022	2.109 **	-0.020	-1.584
Time Dummy (Year 2002)	-0.027	-1.331	-0.009	-0.628	-0.018	-0.949
Time Dummy (Year 2003)	0.007	0.283	0.008	0.485	-0.013	-0.617
Agriculture,Forestry,Fishing,Animal Feed and Husbandry	-0.021	-0.304	0.022	0.527	-0.140	-1.615 *
Construction	-0.173	-1.493	-0.072	-0.894	NA	
Communication	-0.015	-0.161	0.039	0.574	NA	
Hotel & Travel	0.043	0.615	0.093	1.793 *	-0.128	-1.409
Manufacturing	0.013	0.242	0.011	0.299	-0.162	-2.276 **
Mining and Mining Services	-0.123	-1.787 *	0.019	0.388	-0.194	-1.576
Transportation Services	0.048	0.754	0.092	1.935 *	-0.108	-1.155
Wholesale and Retail Trade	-0.027	-0.447	-0.092	-2.162 **	-0.079	-1.007
Real Estate	-0.115	-2.093 **	-0.102	-2.578 **	-0.093	-1.476
Number of Observations	391		380		205	
Adjusted R-Squared	0.398		0.472		0.091	
F (Zero Slopes)	0.000		0.000		0.012	

NA:Not Available
*,**,and***,significant at the10,5,and1percent level,respectively.

prefer borrowings from banks. The estimate results show that there is no significant difference in the bank debt ratio of core business in groups. However, the debt ratio and the long-term debt ratio tend to be higher than those of other companies. For companies with strong influence over the group, there is a tendency that the long-term debt ratio is higher while the short-term bank debt ratio is lower than that of other companies. This tendency is explained by the facts that core businesses with rich business experience and a long history, or companies with strong influence over the group, raise long-term funds by taking advantage of relatively low agency cost, and that other companies in the same group raise short-term funds from banks. In developing countries where the asymmetric postulate of information is high, and financial and legal systems are underdeveloped, it is rational that a core business in the group, with high market visibility, abundant business experience, and low asymmetry postulate of information, raises long-term funds and allocates them in the internal capital markets. The result that the long-term debt ratio of core business is high is one of the keys to support such an estimate.

Chapter 5: Conclusion: Political Implications

Consolidation of corporate finance is one of the keys for Indonesia to maintain its economic growth. We would like to conclude this thesis by describing the political implications of the estimate results on what is required for consolidation of corporate finance.

Positive Results of Financial and Corporate Reforms

With regard to the established corporate finance of Indonesia, people have pointed out several structural problems such as corporate structures intensively dominated by specific families, collusion between banks and enterprise groups, prudential regulations of financial institutions and underdeveloped corporate law and bankruptcy law. Therefore, a series of reforms after the Asian crisis implemented improvement of banks' prudential regulations, along with development of legal regulations, dissolution of ownership structures of companies and banks, and reinforcement and development of legal systems related to corporate governance.

As far as the estimate results in the previous

Table 3 Estimated Results : Debt Ratioin Consideration of Economic Recovery Impacts

	Debt Ratio Retained earnings≧0			Long-Term Debt Ratio Retained earnings≧0			Short-Term Bank Debt Ratio Retained earnings≧0		
	Coefficient	t-value		Coefficient	t-value		Coefficient	t-value	
Intercept	-0.440	-3.122***		-0.612	-6.254***		0.587	4.823***	
Retained earnings for the Previous Year	-0.315	-6.742***		-0.191	-5.895***		0.006	0.083	
Income Tax Rate for the Previous Year	-1.275	-3.610***		-0.669	-2.579***		-0.817	-1.936	**
Fixed Asset Ratio for the Previous Year	-0.058	-1.413		0.100	2.879***		0.044	0.347	
Corporate Scale for the Previous Year	0.149	9.616***		0.120	10.929***		-0.047	-2.451	**
Variance of Operating Profit Ratios	1.794	2.609***		0.642	0.832		4.740	1.602	**
Ethnic Chinese Dummy	0.030	0.234		0.038	0.482		-0.121	-2.195	**
Government-owned Dummy	0.103	1.187		0.053	0.827		-0.025	-0.511	
Foreign-owned Dummy	0.099	1.025		-0.051	-0.851		-0.026	0.218	
EthnicIndian Dummy	0.144	1.585	*	0.060	0.912		NA		
Restructured Dummy	-0.053	-1.682	*	-0.006	-0.277		-0.071	-1.876	*
Effect Level to Enterprise Group Dummy	0.034	1.041		0.049	2.186	**	-0.055	-1.722	*
Core Business of Enterprise Group Dummy	0.028	1.645	*	0.027	2.288	**	-0.019	-1.401	
Year 2003*Ethnic Chinese Dummy	-0.028	-0.389		0.036	0.688		-0.027	-0.365	
Year 2003*Government-owned Dummy	0.030	0.546		0.045	1.168		0.008	0.090	
Year 2003*Foreign-owned Dummy	0.091	0.888		0.174	2.473	**	-0.075	-0.823	
Year 2003*Ethnic Indian Dummy	0.033	0.681		0.034	0.966		0.010	0.124	
Year 2003*Restructured Dummy	0.026	-0.361		0.022	-1.484		-0.014	0.039	
Year 2003*Effect Level to Enterprise Group Dummy	-0.019	0.534		-0.054	0.623		0.002	-0.257	
Year 2003*Core Business of Enterprise Group	-0.006	-0.226		-0.018	-0.947		-0.004	-0.045	
Agriculture,Forestry,Fishing,Animal Feed and Husbandry	-0.018	-0.247		0.022	0.539		-0.137	-1.522	
Construction	-0.170	-1.456		-0.073	-0.905		NA		
Communication	-0.007	-0.080		0.040	0.588		NA		
Hotel & Travel	0.046	0.649		0.093	1.786	*	-0.121	-1.286	
Manufacturing	0.016	0.293		0.010	0.287		-0.157	-2.142	**
Mining and Mining Services	-0.120	-1.714	*	0.020	0.403		-0.187	-1.370	
Transportation Services	0.052	0.812		0.092	1.936	*	-0.102	-1.042	
Wholesale and Retail Trade	-0.026	-0.432		-0.096	-2.247	**	-0.073	-0.883	
Real Estate	-0.111	-2.012	*	-0.103	-2.593	**	-0.087	-1.333	
Number of Observations	391			380			205		
Adjusted R-Squared	0.389			0.473			0.065		
F (Zero Slopes)	0.000			0.000			0.060		

NA:Not Available
*,**,and***,significant at the10,5,and1percent level,respectively.

chapter show, the financing activities of listed companies are explainable by economic rationality. Any particular skew or constraint peculiar to Indonesia is not recognized in the major explaining variables such as corporate profit-earning ratio, collateral capacity, or corporate tax effects. Any difference in financing activities caused by differences in the corporate attributes of ethnic Chinese companies, non-Chinese local companies, and government-linked companies, or in the scale of enterprise groups, is not found in the estimate results for debt ratio. These facts show that the financial activities of listed companies in Indonesia are becoming basically rational under the post-crisis systems, and that there is no excessive borrowing by companies with particularly specific attributes.[23] Sound management of banks, consolidation of corporate governance, and further expansion of reform effects, are expected from now on.

Improvement of Corporate Information Disclosure and Disposal of Collaterals

In spite of financial and corporate reforms after the Asian crisis, the analysis results in the previous chapter illustrate that there are still several policy tasks. One of them is that the agency cost issue based on the asymmetry postulate of information is a critical determinant in companies' financing activities, and that collateral capacity and visibility may in particular become impediments to financing

23 Excessive borrowings of ethnic Chinese companies, which is a popular topic of the news, has not been found at all. On the contrary, it is found that the bank debt ratio of ethnic Chinese companies is significantly lower than that of other companies. Several interpretations of this are possible. For example, ethnic Chinese companies with strong economic potential in Indonesia are able to support each other with short-term debts through the networks, which make them independent of borrowing from banks. Alternatively, non-Chinese local companies and government-linked companies are able to borrow necessary funds from regional banks, while foreign joint venture companies can borrow from banks in the home country. After the Asian crisis, however, as they cannot count on Chinese banks, it may be difficult for ethnic Chinese companies to continue their flexible financing activities.

activities.

According to the estimate results, market visibility and collateral capacity have a significant impact on companies' borrowing. This fact shows that the asymmetry postulate of information between listed companies and external lenders is still high, and that poor collateral capacity and low market visibility would become serious constraints on a company's borrowing even though other corporate attributes were equal to those of other companies. Such impediments to borrowing would be more serious when a company's asymmetry postulate of information is higher and a country's legal systems concerning disposal of collaterals are underdeveloped.

For the solution of such constraint issues, it is necessary to promote corporate information disclosure. Although focus of the corporate reforms after the Asian crisis has been placed on reinforcement of internal audits, it is said that information disclosure to external investors and creditors still leaves much to be desired (Sato [2004]). In future, it is necessary to recognize that inadequacy of corporate information disclosure is a serious constraint on financing activities, and that a company's information should be released in an open way. For promotion of corporation information disclosure, policies for reinforcement of the duty of disclosure are to be implemented by the government.

In Indonesia's current corporate finance structure, collateral capacity has a significant impact on borrowing of funds. It is essential, in debt liquidation, to implement disposal of collaterals smoothly and speedily so that they would mitigate the asymmetry postulate of information. After the Asian crisis, the bankruptcy law and the corporate law were revised for the liquidation and reconstruction of failed companies, and commercial courts were established for facilitating the necessary procedures. However, despite such political measures, it is said that there are many problems in the disposal process of bankruptcy and collaterals (Sato [2004a]). As Indonesia's current corporate finance structure is built upon the implementation of legal disposal of collaterals, solving these problems is the most urgent task.

Delayed Recovery of Bank Loans

In developing countries where systems are underdeveloped, it is said that an information production function of banks based on their close business relationship with companies is essential as a measure to overcome the corporate asymmetry postulate of information (Allen and Gale [2000]). However, the estimate results of short-term bank debt ratio show that the credit activities of banks are insufficient. In addition to insufficient persuasive power of the estimate formula, there is an issue of incomplete function of collateral and of profit-earning capacity, which are generally supposed to affect borrowing of funds from banks. Such situations indicate that the Indonesian banks do not properly bear risks at levels that meet the profitability of borrowers.

The issue of risk-bearing function is caused by several factors. One of them is that corporate information disclosure is still insufficient and the processes of collateral disposal and liquidation are not smoothly implemented, although banks are tightening their credit policies by strict regulations established after the Asian crisis. Since it is difficult for them to conduct risk assessment for each company, banks may be diversifying their risks by allocating credits broadly to many companies.

Some people point out as a bottleneck factor for banks that the lending-limit regulations are restricting their loan ceiling when the average bank scale is small.[24] When the lending upper limit is low, a bank will allocate the maximum credit to many companies. When a company borrows up to the limit, high profitability or collateral capacity would be meaningless for increasing bank loans. In order to raise a bank's lending limit, it is necessary to expand the bank scale or to leverage the syndication more effectively. The former requires capital increase or merger and acquisition. To implement such measures,

24 This is based on the local field survey. As the reforms after the crisis set lending limits not for individual borrowers but for the enterprise group to which the borrower belongs, the bank loan regulations are far stricter than before. Since 2003, investment demand has been rising due to the economic recovery, and this is aggravating the issues, especially for major companies.

it is desirable that the government be actively committed to policies such as raising the minimum capitalization requirements. Bank Indonesia had drawn up a blueprint for integrating 152 commercial banks in 1999 and another 35-80 banks in the coming 10-15 years, and of creating 5-8 new megabanks. The authorities should be actively committed to the process of mergers of commercial banks.

For Improvement of Long-Term Capital Markets

The estimate results show that collateral capacity has the most significant impact on determinants of long-term debt ratio, and that the asymmetry postulate of information is more strictly constraining long-term borrowing. It is also found that the long-term debt ratio of a core business in an enterprise group is higher than that of other companies. The analysis results lead to the conclusion that only companies with high collateral capacity are able to borrow long-term external funds, and that the core business of each enterprise group is responsible for borrowing long-term external funds.

As described earlier, the reasons for difficulty in borrowing long-term funds are considered to be insufficient corporate information disclosure, constraints on the credit capacity of banks, the country's underdeveloped systems, and lack of companies' executive ability to dispose of collaterals and failed companies. In tandem with solution of these problems, expansion of funding methods in substitute for bank loans is required, although this proposal may deviate from the original subject. It is essential to develop capital markets such as stock and debenture markets to meet the demand of large-scale long-term debts.

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